

HP ProLiant BL p-Class F-GbE2 Interconnect Kit

Quick Setup Instructions



*Read instructions completely before beginning
installation procedures*

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Overview

This card contains information on how to set up the contents of the kit for your use.

For more information on switch installation and to download management utilities and firmware, go to the HP website (<http://www.hp.com/support>). Search for **GbE2**.

To obtain the HP Ethernet Connectivity Mapper, download the Interconnect Switch Management Utilities from the HP website (<http://www.hp.com/support>). Search for **GbE2**.

Kit contents

- Two ProLiant BL p-Class GbE2 Interconnect Switches
- Two ProLiant BL p-Class QuadSX Interconnect Modules
- This installation card
- Limited warranty and material limitations documentation

Regulatory notice

This is a Class A digital device, pursuant to Part 15 of the FCC Rules. For complete details, refer to the *HP ProLiant BL p-Class GbE2 Interconnect Switch User Guide* located on the HP website (<http://www.hp.com/support>).

This product may be provided with an optical storage device (that is, CD or DVD drive) and/or fiber optic transceiver. Each of these devices contains a laser that is classified as a Class 1 Laser Product in accordance with US FDA regulations and the IEC 60825-1. The product does not emit hazardous laser radiation.

⚠ WARNING: Use of controls or adjustments or performance of procedures other than those specified herein or in the laser product's installation guide may result in hazardous radiation exposure. To reduce the risk of exposure to hazardous radiation:

- **Do not try to open the module enclosure. There are no user-serviceable components inside.**
- **Do not operate controls, make adjustments, or perform procedures to the laser device other than those specified herein.**
- **Allow only HP Authorized Service technicians to repair the unit.**

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. These regulations apply to laser products manufactured from August 1, 1976. Compliance is mandatory for products marketed in the United States.

Preparing for installation

WARNING:

- Installation of this interconnect switch should be performed by individuals who are both qualified in the servicing of computer equipment and trained in the dangers associated with products capable of producing hazardous energy levels.
- To reduce the risk of personal injury from hot surfaces, allow the internal system components to cool before touching.



IMPORTANT: If you are replacing an existing ProLiant BL p-Class GbE2 Interconnect Switch or upgrading from a ProLiant BL p-Class GbE Interconnect Switch, a ProLiant BL p-Class RJ-45 Patch Panel, or a ProLiant BL p-Class RJ-45 Patch Panel 2, refer to the *HP ProLiant BL p-Class GbE2 Interconnect Switch User Guide*.



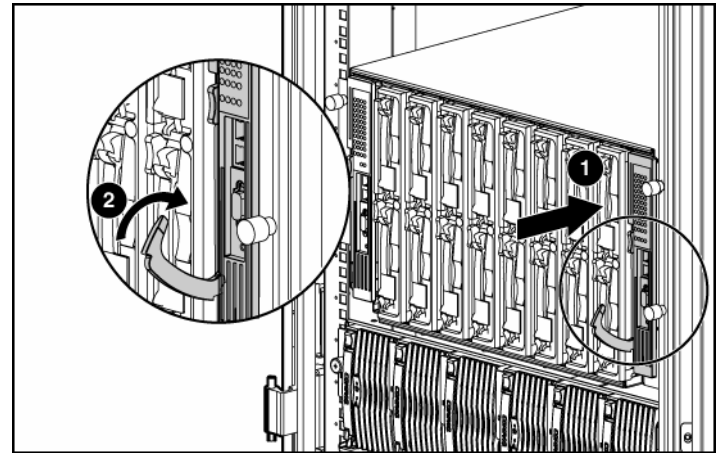
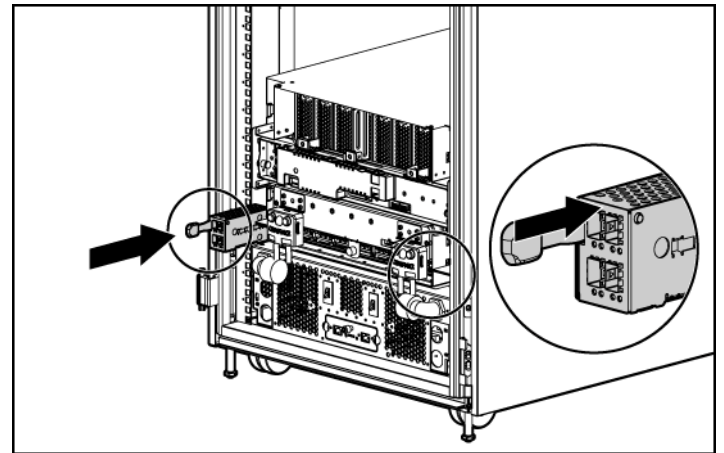
IMPORTANT: Before installing the interconnect switch, make a record of the Machine Address Code (MAC) address (printed on the MAC address label attached to your interconnect switch). You might need this address when you configure your interconnect switch.

Installation guidelines

Observe the following guidelines during installation:

- Always install interconnect switches in pairs. Each server blade enclosure requires two interconnect switches for proper connectivity.
- Always install the interconnect modules into the bottom left-most and bottom right-most bays on the rear side of the server blade enclosure.
- Be sure that each interconnect module is firmly seated. The latch or handle will drop into place when the module is firmly seated.
- Always install the interconnect switches into the interconnect bays, which are the left-most (side A) and right-most (side B) bays on the front side of the server blade enclosure.

Installing the interconnect switches and modules

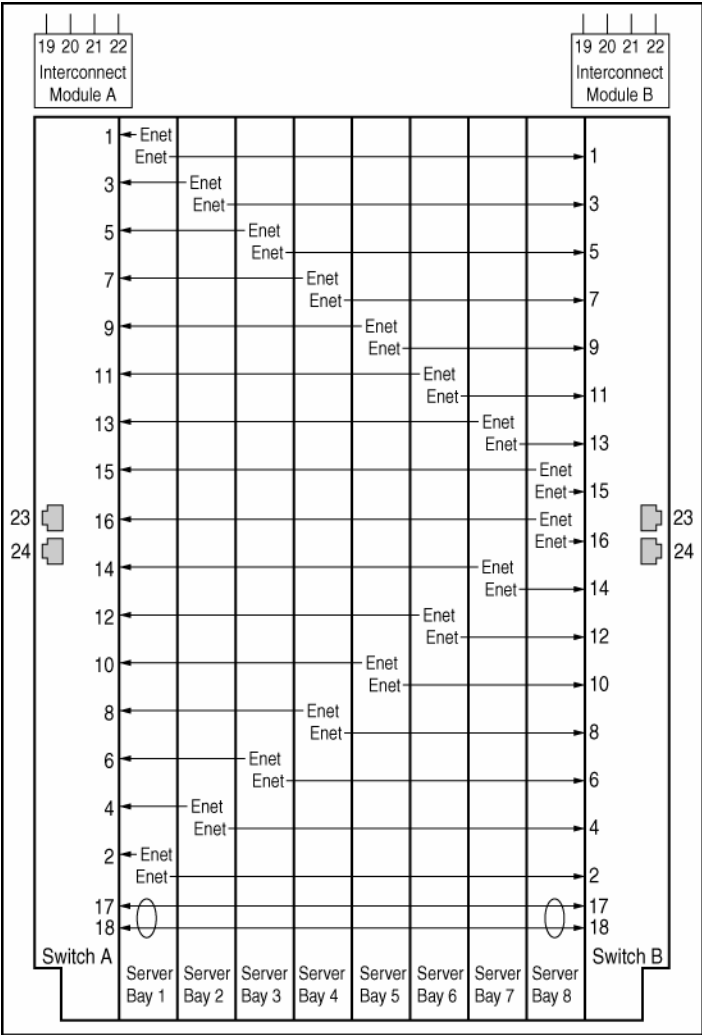
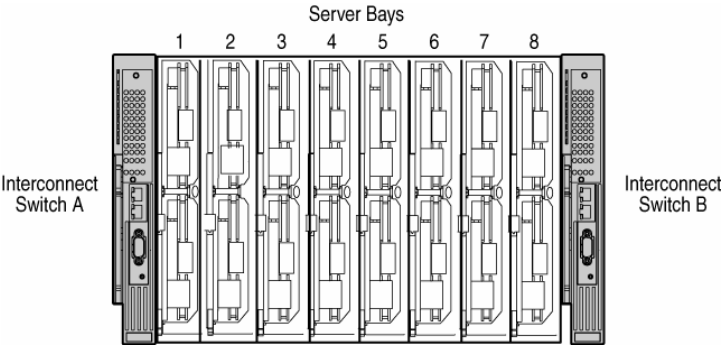


Planning the interconnect switch configuration

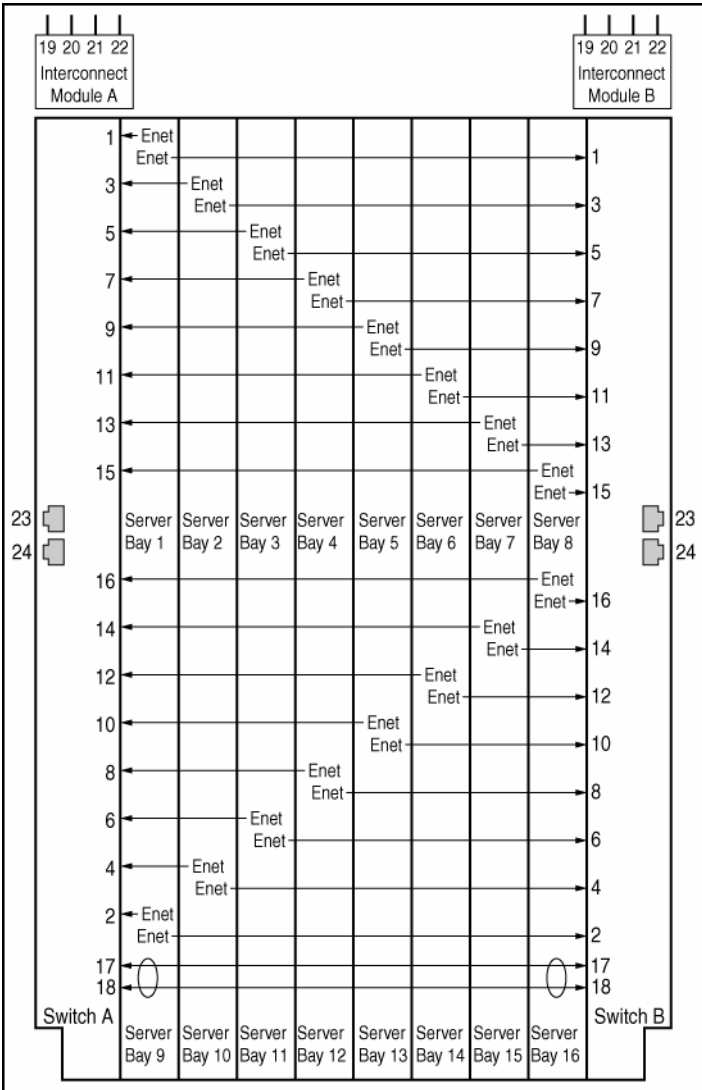
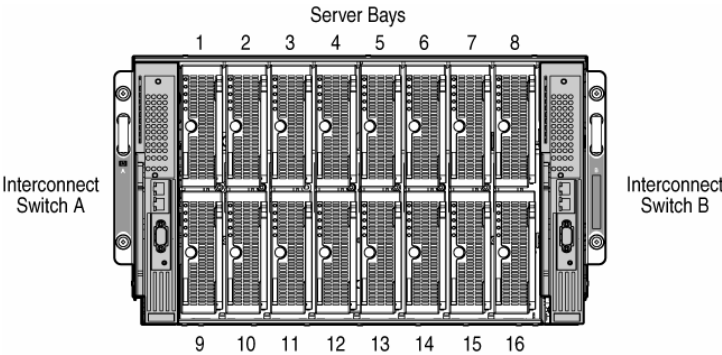
The interconnect switches ship with a default configuration in which all ports are enabled and assigned a default virtual LAN (VLAN) with VLAN ID equal to 1. This default configuration simplifies your initial setup. Your environment might require other configurations. For more information about planning the interconnect switch configuration, refer to the *HP ProLiant BL p-Class GbE2 Interconnect Switch User Guide* located on the HP website (<http://www.hp.com/support>).

The interconnect switch does not affect or determine NIC numeration and the associated mapping of NIC interfaces to interconnect switch ports. The numbering of the NICs on the server (for example, NIC 1, NIC 2, NIC 3) is determined by the server type, the server operating system, and what NICs are enabled on the server.


The following diagram illustrates the Ethernet signal connectivity between server bays and the interconnect bays through the backplane for the p-Class server enclosure.



The following diagram illustrates the Ethernet signal connectivity between server bays and the interconnect bays through the backplane for p-Class server enclosures with enhanced backplane components that support high-density blade servers.

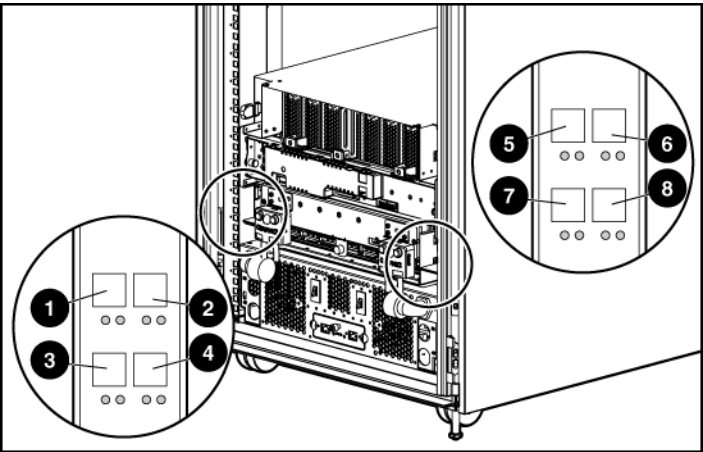


Cabling the interconnect switch

 **IMPORTANT:** If you are replacing an existing ProLiant BL p-Class GbE2 Interconnect Switch or upgrading from a ProLiant BL p-Class GbE Interconnect Switch, a ProLiant BL p-Class RJ-45 Patch Panel, or a ProLiant BL p-Class RJ-45 Patch Panel 2 and have strict security requirements, you can perform one of the following:

- Do not cable the interconnect switch until after configuration.
- Connect the interconnect switch to the Diagnostic Station. The Diagnostic Station enables you to power up, configure, and diagnose a ProLiant p-Class server blade or an interconnect switch outside of the setup and installation guide for the server blade enclosure.

Connecting the network cables to the interconnect modules





Item	Description
1	Port 22 LC fiber connector for 1000SX uplink on Switch B
2	Port 21 LC fiber connector for 1000SX uplink on Switch B
3	Port 20 LC fiber connector for 1000SX uplink on Switch B
4	Port 19 LC fiber connector for 1000SX uplink on Switch B
5	Port 22 LC fiber connector for 1000SX uplink on Switch A
6	Port 21 LC fiber connector for 1000SX uplink on Switch A
7	Port 20 LC fiber connector for 1000SX uplink on Switch A
8	Port 19 LC fiber connector for 1000SX uplink on Switch A

Powering up the interconnect switch

If the server blade enclosure has power applied, the interconnect switch automatically begins to power up when installed. The power status LED on the front of the interconnect switch illuminates amber to indicate that power is connected to the interconnect switch. After 30 seconds, the power status LED turns to green to indicate that the interconnect switch is on. After the built-in self-test flashes all LEDs, the active links illuminate and the power status LED stays green.

You can manually force the interconnect switch to power up by pressing the **Pwr/Rst** button through the access hole in the front panel of the interconnect switch, while the power status LED is amber. HP recommends using a small, blunt object for this purpose.

 **CAUTION:** Pressing the **Pwr/Rst** button while the power status LED is green will reset the interconnect switch.

 **NOTE:** If the server blade enclosure does not have power applied, refer to the setup and installation guide for the server blade enclosure.

Accessing the interconnect switch

The interconnect switch can be accessed locally using the front panel DB-9 serial management port or remotely using either the 1000SX uplink Ethernet ports in the interconnect module or the interconnect switch front panel Ethernet ports.

To access the interconnect switch remotely, you must assign it an IP address. By default, the interconnect switch is set up to obtain its IP address from a BOOTP server existing on the attached network.

To access the interconnect switch remotely:

1. From the BOOTP server, use the interconnect switch MAC address to obtain the switch IP address.
2. From a computer connected to the same network, use the IP address to access the interconnect switch using a Web browser or telnet application, which enables you to access the interconnect switch browser-based interface (BBI) or command line interface (CLI). The interconnect switch logon prompt appears.

If the interconnect switch does not obtain the IP address by means of the BOOTP service, you can access the interconnect switch locally and configure the IP address manually. After assigning the IP address to the interconnect switch, you can then access the switch remotely.

To access the interconnect switch locally:

1. Connect the interconnect switch DB-9 serial connector, using the null-modem serial cable (provided with the following option kits: Scalable Busbar, Mini Busbar, and Power Bus Box), to a local client device (such as a laptop computer) with VT100 terminal emulation software.
2. Open a VT100 terminal emulation session with the following settings: 9600 baud rate, eight data bits, no parity, one stop bit, and no flow control.

Logging on and configuring the interconnect switch

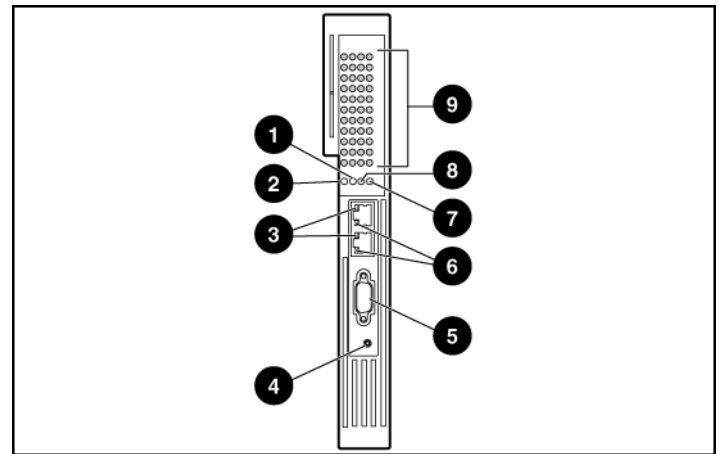
To log on to the interconnect switch, enter `admin` for both the default user name and password.



NOTE: If you are in the CLI, you might need to press the **Enter** key to display the login prompt.

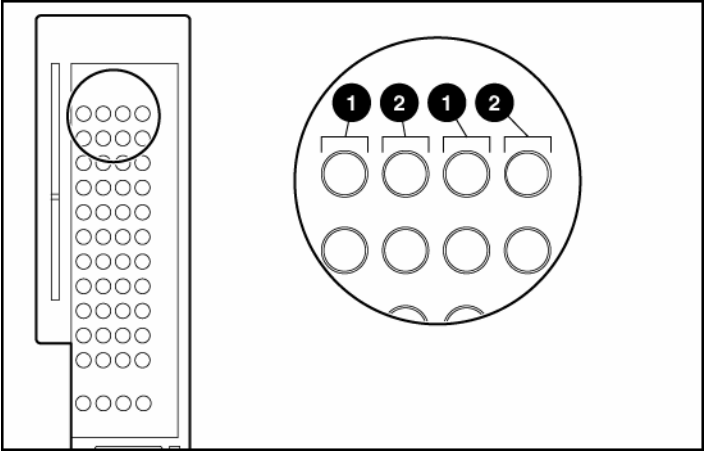
The interconnect switch comes configured with the factory default configuration. For more information on configuring the interconnect switch for your network environment, refer to the *HP ProLiant BL p-Class GbE2 Interconnect Switch User Guide* located on the HP website (<http://www.hp.com/support>).

Interconnect switch front panel



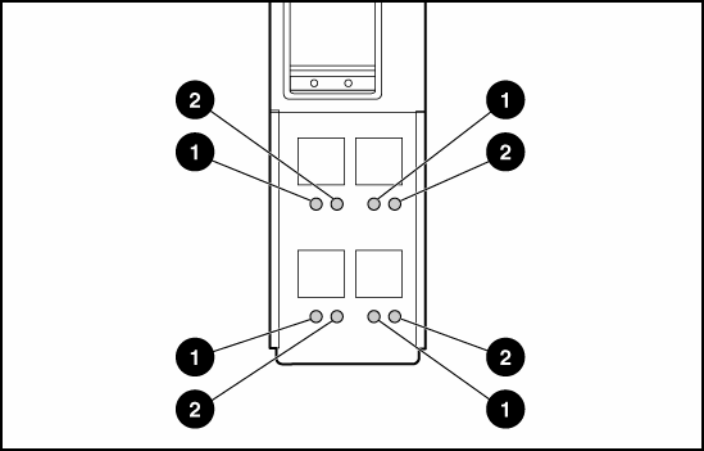
Item	Description	Status/function
1	10G LED	Reserved for future use.
2	SAN LED	Off = HP ProLiant BL p-Class GbE2 Storage Connectivity Kit is not installed. On = Refer to the <i>HP ProLiant BL p-Class GbE2 Storage Connectivity Kit Quick Setup Instructions</i> for more information.
3	Front panel RJ-45 connector link speed LEDs	Amber = 1000 Mb/s Green = 100 Mb/s Off = 10 Mb/s
4	Pwr/Rst button	Forces the interconnect switch to power up or reboot.
5	DB-9 connector	Used to access the local management console.
6	Front panel RJ-45 connector link activity LEDs	Green = Link and no activity Green flashing = Link and activity Amber = Port disabled Off = No link
7	Management status LED	Flashing = Management session active Off = No management session active
8	Power status LED	Green = Power on Amber = Stand-by mode Off = Power off
9	Link activity and speed LEDs	Refer to the following figures and tables for LED assignments and functions.

NIC LED functions



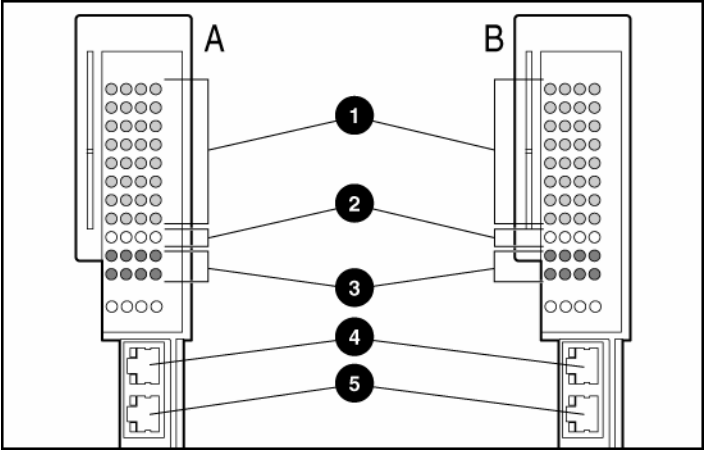
Item	Description	Status
1	Link speed	Amber = 1000 Mb/s Green = 100 Mb/s Off = 10 Mb/s
2	Link activity	Green = Link and no activity Green flashing = Link and activity Amber = Port disabled Off = No link

Interconnect module LEDs



Item	Description	Status
1	Link speed	Amber = 1000 Mb/s
2	Link activity	Green = Link and no activity Green flashing = Link and activity Amber = Port disabled Off = No link

NIC LED assignments



Item	Description
1	Downlink ports 1-16
2	Crosslink ports 17-18
3	Rear panel uplink ports 19-22
4	Front panel RJ-45 port 23
5	Front panel RJ-45 port 24